

REMARKS

Entry of the foregoing and reexamination and reconsideration of the subject application, as amended, pursuant to and consistent with 37 C.F.R. § 1.112, are respectfully requested in light of the remarks which follow.

As stated in the Office Action Summary, claims 54-97 are currently pending. Claims 54, 56-61, 64-66 and 77-79 are amended herein. Claims 54 and 56-59 have been amended to recite the three letter amino acid codes instead of the one letter amino acid codes. The claims have also been amended to remove the phrase "or a functionally equivalent homolog or analog". Claim 60 has been amended to depend on claim 57 rather than claim 54. Claim 65 has been amended to recite "and" rather than "and/or" and new claim 98 is added herein to recite the same subject matter as claim 65, except reciting "or" rather than "and". Claims 77-79 are also amended to recite "or".

Thus, no new matter is presented by way of these amendments or new claim 98. Applicants reserve the right to file a continuation or divisional application directed to any subject matter deleted by way of this Amendment.

Objections to the disclosure and claims

The disclosure is objected to for the recitation of "X₅D", although it purportedly should recite "X in position 11 is D" (at page 6, line 34). The disclosure has been amended herein to recite "X in position 11 is D". Applicants respectfully submit that the objection to the disclosure has been obviated.

Claims 54 and 56 stand objected to for purportedly reciting a one letter amino acid code in SEQ ID NO:99, but then reciting a three letter amino acid code for the same amino acid residues at the X position. Claims 54 and 56 (as well as claims 57-59) have been amended to recite the three letter amino acid codes. Thus, this objection is obviated.

Rejection under 35 U.S.C. § 112, first paragraph

Claims 45, 56-66, 72, 74, 75 and 77-97 stand rejected under 35 U.S.C. § 112, first paragraph as lacking enablement. The Office Action states that the specification is enabling for a peptide comprising SEQ ID NO:99 (wherein SEQ ID NO:38 is excluded), a medicinal product or a food stuff comprising the peptide, a method of treating inflammations or infections using the peptide, and a lactoferrin peptide having a defined sequence and an antimicrobial function. However, the Office Action states that the specification does not provide enablement for a functionally equivalent homolog or analog of the peptide, wherein the peptide comprising SEQ ID NO:99 is excluded and the function of the homolog or analog is not defined. The Office Action further asserts that the specification does not enable the full scope of the claims in view of homologs or analogs of the lactoferrin peptides, or the method of treatment of prevention of infections or inflammations as discussed in the stated rejection.

In the interest of expediting prosecution, and without ceding to the rejection as set forth in the Office Action, Applicants have amended the claims herein to remove the phrase "or a functionally equivalent homolog or analog thereof". Thus, the present claims as

amendment recite subject matter which the Office Action states is enabled. Applicants respectfully request that this rejection be withdrawn.

Rejection under 35 U.S.C. § 112, second paragraph

Claims 54-97 stand rejected under 35 U.S.C. § 112, second paragraph, as purportedly indefinite.

Claims 54-97 stand rejected for the recitation of the term "functionally equivalent homolog or analog of the peptide". Applicants note that the claims have been amended herein to remove this phrase. Thus, this rejection is mooted.

Claim 60 stands rejected for the recitation of the term "cyclised through a disulfide bridge", as it is purportedly unclear as to where the disulfide bond forms, because there is only one Cys in SEQ ID NO:99. Claim 60 has been amended herein to depend on claim 57, rather than claim 54. Claim 57 recites a second Cys for cyclization. Thus, this rejection is obviated.

Claims 65 and 77-80 stand rejected for the recitation of "and/or." Claim 65 has been amended to replace "and/or" with "and". New claim 98 has been added reciting the same subject matter as claim 65, except it recites "or". Claims 77-79 are also amended herein to recite "or" instead of "and/or". Thus, this rejection is obviated.

Claims 87-97 stand rejected for purportedly lacking an essential step in the method of treating or preventing infections or inflammations. Applicants submit that claims 87-97 do recite a proper method step (for example, "administering to a patient in need thereof an

effective amount of a peptide of claim 54" as recited in claim 87. Thus, Applicants submit that the claims are in proper method format.

Rejection under 35 U.S.C. § 102

Claims 54, 56, 60, 75, 77, 82, 83, 85, 87, 92, 94 and 96 stand rejected under 35 U.S.C. § 102(b) as purportedly anticipated by European Patent No. 0 629 347 issued to Tomita *et al.* Tomita *et al.* is cited for purportedly disclosing antimicrobial peptides derived from lactoferrin, as well as the use of antimicrobial peptides for the treatment of any condition caused by proliferation of microorganism.

Claims 54, 56, 60, 66, 75, 77, 82, 83, 85, 87, 92, 94 and 96 stand rejected under 35 U.S.C. § 102(b) as purportedly being anticipated by U.S. Patent 5,304,633 issued to Tomita *et al.* This reference is also cited for purportedly disclosing antimicrobial peptides derived from lactoferrin, as well as the use of antimicrobial peptides for the treatment of any condition caused by proliferation of microorganism.

Claims 54, 56, 58, 60, 65, 72-75, 77, 81, 82, 85, 87, 92, 93 and 96 stand rejected under 35 U.S.C. § 102(b) as purportedly being anticipated by U.S. Patent No. 5,565,425 issued to Yamamoto *et al.* Yamamoto *et al.* is cited for purportedly disclosing anti-viral peptides derived from lactoferrin, which can be used to prepare pharmaceutical compositions against viral infection. Applicants respectfully traverse.

For proving anticipation, "anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention as arranged in the claims." *Jamesbury Corp. v. Litton Industrial Products, Inc.*, 225 U.S.P.Q. 253, 256 (Fed. Cir. 1985).

Applicants submit that the cited references, European Patent No. 0 629 347, U.S. Patent 5,304,633 and U.S. Patent No. 5,565,425, do not anticipate the claimed invention, amended herein. The claims as amended recite peptides, medicinal products and methods regarding same. The claims have been amended herein to remove the phrase "or a functionally equivalent homolog or analog thereof".

The cited references do not disclose the claimed peptide, products and methods of the present invention. Rather, the cited references at best are directed to functionally equivalent homologs and/or analogs. As stated in the Office Action, the three references are cited for disclosing sequence which are functional analogs of the sequences of the present invention, such as analogs to SEQ ID NO: 38. As stated in the Office Action, the cited references do not recite SEQ ID NO: 38 itself. Thus, as amended herein, the present claims are not anticipated by the cited references. Applicants request that these rejections be withdrawn.

CONCLUSION

In view of the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order. Such action is earnestly solicited.

In the event that there are any questions relating to this application, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

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By: _____



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